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I.—*Fourth List of Butterflies taken in Sikkim in October, 1884, with Notes on Habits, &c.*—By LIONEL DE NICEVILLE.

[Received 13th January;—Read April 1st, 1885.]

I have already contributed three papers to the Journal of this Society on the Rhopalocera taken near Darjiling in October. In the last of these papers, the number of species recorded as met with in this month is given as 284, which is increased in the present list to 313, or about twice the number of species found throughout the year in Calcutta. These species were all taken at low elevations, either in the Runjit Valley or on the roads between it and Darjiling, except in a few cases where other localities are given; and it is probable that many more species will be discovered when some of the other valleys and the higher elevations such as Senchal come to be explored.

LEPIDOPTERA RHOPALOCERA.

Family NYMPHALIDÆ.

Subfamily SATYRINÆ.

285. *Mycalesis (Calysisme) blasius*, Fabricius.

A single male. In my previous paper,* I recorded that *M. perseus* was very rare in Sikkim. It appears that *M. blasius* is equally so, which accords with my lately expressed opinion that these hitherto supposed distinct species are in reality but one species, which should stand as *M. perseus*, the form that is usually called *blasius* occurring in the rains

* J. A. S. B. 1882, vol. li, pt. ii, p. 56, no. 136.

and the form *perseus*, in the dry weather. In the same way, *M. mineus* and *M. visala* must be united under the former name, the ocellated form (*M. mineus*) occurring in the rains, and the non-ocellated pointed-winged form (*M. visala*), in the dry season.

286. *Lethe scanda*, Moore.

Mr. Otto Möller took a single female specimen in perfect condition in Birch Hill Park, Darjiling, at 6,800 feet elevation. This sex has been twice separately described, by Mr. Moore as *Debis nada*, and by Mr. Druce as *Zophoessa dirphia*.

287. *Orinoma damaris*, Gray.

I took a single female specimen at 3,200 feet elevation. It differs from the male only in the wings being slightly broader, and the apex and outer margin of the forewing more rounded.

Subfamily MORPHINÆ.

288. *Stichophthalma camadeva*, Westwood.

I saw a single specimen of this splendid species. It is common in Sikkim in June and July.

Subfamily NYMPHALINÆ.

Symbrenthia hippocla, Cramer.

In the Proc. Zool. Soc. Lond. 1874, p. 570, Mr. Moore has described a species of *Symbrenthia* from Masuri under the name of *S. daruka*. I took a female specimen of a *Symbrenthia* on this occasion which I consider to be merely a casual variety or 'sport' of *S. hippocla*. It agrees with Mr. Moore's description of *S. daruka*, but has hardly any of the black ground-colour left, this varietal character being carried to even a greater extreme in it than in the specimen he described.

289. *Ergolis indica*, Moore.

A single male. This species is very doubtfully distinct from *E. ariadne*, Linnæus, which Mr. Moore has lately restricted to the island of Java.

290. *Limenitis danava*, Moore.

A single female taken at Singla, 1,000 feet elevation.

291. *Apatura sordida*, Moore.

One male taken in the Runjit Valley.

292. *Helcyra hemina*, Hewitson.

One female of this rare species.

Family LEMONIIDÆ.

Subfamily LIBYTHINÆ.

293. *Libythea myrrha*, Godart.

I took a single male in the bed of a hill stream.

Family LYCÆNIDÆ.

294. *Cyaniris marginata*, de N.

I took a single male at about 3,000 feet elevation.

295. *Nacaduba atrata*, Horsfield.

Three males.

296. *Nacaduba prox. viola*, Moore.

A single male. *N. viola* is recorded from Ceylon, but I have not seen a specimen from that locality. The expanse given for the ♂ is $\frac{9}{10}$ of an inch, while the Sikkim specimen measures $1\frac{3}{10}$ inches. The white bands on the underside as described by Mr. Moore appear to differ also: in *N. viola* the two inner and the outer ones are short; in the Sikkim specimen it is only the middle pair on either side of the discocellular nervules which are short, the other two pairs extending nearly across the wing.

Nacaduba ardates, Moore.

Mr. Distant in his recent work 'Rhopalocera Malayana' has divided the *Lycenidæ* into three groups, the first of which (*Curetaria*) lacks "filamentous tail-like appendages" to the hindwing, while the other two groups (*Castalaria* and *Aphnaria*) possess these tails. This year I took many specimens of a *Lycenid* in company with *N. ardates* which differed in no way from that species except in having no tails. On careful microscopic examination of these tailed and tailless forms, I can find no difference between them in respect of the venation; and as the markings are precisely similar, I conclude that they are one and the same species. Mr. Distant, in forming his three groups (p. 196), says that the presence or absence of the tail "may prove to be an uncertain and illusory divisional character" as an American naturalist has recorded that certain North American species have a tailless spring brood, and a summer tailed generation. In Sikkim, at any rate, both forms occur together, and in equal perfection as to condition. I have also received both forms from Orissa, collected by Mr. W. C. Taylor. Another species (*N. dana*, de N.) which when describing it I placed doubtfully in the genus *Nacaduba* has the venation of that genus, but no tails. It occurs at Buxa in Bhutan, in Sikkim, at Bholahât in the Malda district, in the Chittagong district, and at Ootacamund.

297. *Catochrysops bengalia*, de N.

One male.

298. *Sithon indra*, Moore.

One female.

299. *Sithon mandarinus*, Hewitson.

One male.

300. *Chliaria kina*, Hewitson.

I took a male only at about 3,000 feet elevation.

301. *Satadra atrax*, Hewitson.

Two females.

302. *Satadra bupola*, Hewitson.

Several examples. They differ from Hewitson's figure of that species in having an additional spot on the costa just beyond the spot closing the cell on the underside of the forewing.

303. *Satadra œnea*, Hewitson.

Three males and a female taken.

Family PAPILIONIDÆ.

Subfamily PIERINÆ.

304. *Delias belladonna*, Fabricius.

I took a single male at rest in the bed of a stream in nearly half an inch depth of running water.

Subfamily PAPILIONINÆ.

305. *Papilio (Sainia) protenor*, Cramer.

One male only.

306. *Papilio rhetenor*, Westwood.

Several males. This species has a male "sexual-mark" placed in a very unusual position, viz., on the underside of the hindwing just beyond the cell between the third median and discoidal nervules.

307. *Papilio (Chilasa) panope*, Linnæus.

A single male.

Family HESPERIIDÆ.

308. *Badamia exclamationis*, Fabricius.

This is a common species in Sikkim, but met with in October for the first time on this occasion.

309. *Halpe cerata*, Hewitson.

This is rather a rare species.

310. *Suastus aditus*, Moore.

This species was first described from the South Andamans. Mr. W. C. Taylor has obtained it in Orissa.

311. *Coladenia dhanada*, Moore.

One specimen.

312. *Thanaos kali*, de N.

313. *Thanaos jhora*, de N.

These two species occur together with *T. stigmata* settled on damp spots sucking up the moisture. On the wing, *T. kali* is easily distin-

guished from the other two species by its much larger size and deep black colour. It is much the rarest of the three. *T. stigmata* is the only described species of the genus having a male sexual mark on the upperside of the forewing.

II.—*Notes on Indian Rhynchota*, No. 2.—*By* E. T. ATKINSON, B. A.

[The notes are taken so far as possible from the original descriptions or from Stål, Signoret, Butler, or Distant, &c. where these writers have redescribed a species. The measurements of specimens not in the Indian Museum have been converted into millimetres from the recorded measurements of the several authors.]

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HOMOPTERA.

Family CERCOPIDÆ.

Cercopida, Stål, Hem. Afric. iv. p. 54 (1866): Hem. Fabr. ii. p. 11 (1869). Fieber, Rev. Mag. Zool. (3 sér.) iii. p. 323 (1875): *Cercopina* Stål, Ofvers. Kong. Vet. Aka. Förh. p. 718 (1870).

Frons convex or compressly produced: ocelli two on the vertex near the base: thorax, large, sexangular or trapezoidal: scutellum small or moderate, triangular; tegmina usually coriaceous: feet remote from the sides of the body with the coxæ (especially the posterior pair) short: tibiæ rounded, posterior furnished with one or two spines and with a circle of spinules at the apex.

Subfamily CERCOPINA, Stål.

Cercopida, Stål, Hem. Afric. iv. p. 55 (1866): Hem. Fabr. ii. p. 11 (1869): *Cercopina*, Stål, Ofvers. Kong. Vet. Aka. Förh. p. 718 (1870).

Anterior margin of thorax straight, eyes equally long and broad.

In 1874, Mr. Butler of the British Museum (Cist. Ent. i. p. 245) recorded the species of the genera *Cosmoscarta* and *Phymatostetha*, formed by Stål from the genus *Cercopis* of Walker (*nec* Fabricius). He enumerated 104 species of the genus *Cosmoscarta* and 22 species of the genus *Phymatostetha*. Since then, the number of species of the genus *Cosmoscarta* has been increased by eight of which five, described by Mr. Distant, come from India and the Eastern Archipelago, and three, described by Mr. Butler, come from Penang and Sumatra. The number